

WHAT IS CLAIMED IS:

1. A baggage compartment comprising:

a support structure including a side member;

a baggage bin that is selectively raisable and lowerable relative to said support structure between an upper closed position and a lower open position, and that includes a bin floor, an open front, and a bin side wall extending upwardly from said bin floor adjacent to said side member of said support structure;

a front arcuate guide arrangement movably connecting said bin side wall to said side member of said support structure to allow arcuate movement therebetween along a first arc;

a rear arcuate guide arrangement movably connecting said bin side wall to said side member of said support structure to allow arcuate movement therebetween along a second arc, wherein said front arcuate guide arrangement is arranged relatively closer to said open front of said baggage bin and said rear arcuate guide arrangement is arranged relatively farther from said open front of said baggage bin, and wherein said first arc and said second arc respectively extend along respective circular arcs about a common arc center point; and

a linear guide arrangement movably connecting said bin side wall to said side member of said support structure to allow linear movement therebetween.

1 2. The baggage compartment according to claim 1, wherein said
2 support structure is a baggage compartment housing that
3 encloses said baggage bin in said upper closed position,
4 and said side member of said support structure is a housing
5 side wall of said housing.

1 3. The baggage compartment according to claim 1, wherein said
2 support structure is an airframe structure of an aircraft
3 and said side member is a downwardly protruding structural
4 member of said airframe.

1 4. The baggage compartment according to claim 1, wherein said
2 linear guide arrangement is arranged between said front
3 arcuate guide arrangement and said rear arcuate guide
4 arrangement.

1 5. The baggage compartment according to claim 1, wherein said
2 linear guide arrangement extends along a non-vertical slope
3 with a lower end of said linear guide arrangement tilted
4 relatively toward said open front of said baggage bin and
5 an upper end of said linear guide arrangement tilted
6 relatively away from said open front of said baggage bin.

1 6. The baggage compartment according to claim 1, wherein said
2 first arc of said front arcuate guide arrangement has a
3 larger radius of curvature and spans a larger arc angle
4 than said second arc of said rear arcuate guide
5 arrangement.

1 7. The baggage compartment according to claim 1, wherein said
2 front and rear arcuate guide arrangements each respectively
3 comprise an arcuate guide groove provided in a first one of
4 said side wall of said baggage bin and said side member of
5 said support structure, and a guide member that is received
6 to be guidedly movable in said guide groove and that is
7 connected to a second one other than said first one of said
8 side wall of said baggage bin and said side member of said
support structure.

9 8. The baggage compartment according to claim 7, wherein each
said guide member respectively comprises a respective
element selected from the group consisting of guide bolts,
guide rollers, and guide slide blocks.

10 9. The baggage compartment according to claim 7, wherein each
said arcuate guide groove is an open through-going arcuate
slot penetrating entirely through a thickness of said first
one of said side wall and said side member, said guide
member extends entirely through said slot, and said arcuate
guide arrangements each respectively further comprise a
securing element that respectively secures said guide
member against lateral motion relative to said first one of
said side wall and said side member.

11 10. The baggage compartment according to claim 7, wherein each
said arcuate guide groove is a closed blind channel that

3 does not penetrate entirely through a thickness of said
4 first one of said side wall and said side member, and said
5 guide member extends into said channel.

1 11. The baggage compartment according to claim 7, wherein at
2 least one of said arcuate guide arrangements further
3 comprises a stop member that is selectively secured at a
4 selected location in said arcuate guide groove to limit a
5 travel of said guide member in said arcuate guide groove.

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8 12. The baggage compartment according to claim 7, wherein said
first one of said side wall and said side member is said
side wall of said baggage bin, whereby said arcuate guide
groove is provided in said side wall of said baggage bin,
and wherein said second one of said side wall and said side
member is said side member of said support structure,
whereby said guide member is connected to said side member
of said support structure.

1 13. The baggage compartment according to claim 7, wherein said
2 linear guide arrangement comprises a guide track connected
3 to either one of said side wall and said side member, and
4 a guide roller that is rotatably connected to the other one
5 of said side wall and said side member and that is
6 rollingly engaged with said guide track so as to roll
7 therealong.

1 14. The baggage compartment according to claim 7, wherein said
2 front and rear arcuate guide arrangements are arranged,
3 configured and adapted as follows: said guide members are
4 positioned at a lowermost end position respectively in said
5 arcuate guide grooves when said baggage bin is in said
6 upper closed position, said arcuate guide grooves move
7 relatively along said guide members and then said guide
8 member of said rear arcuate guide arrangement reaches an
9 uppermost end position in said arcuate guide groove of said
10 rear arcuate guide arrangement before said guide member of
11 said front arcuate guide arrangement reaches an uppermost
12 end position in said arcuate guide groove of said front
13 arcuate guide arrangement as said baggage bin is moved
14 downwardly from said upper closed position toward said
15 lower open position, and after said guide member of said
16 rear arcuate guide arrangement reaches said uppermost end
17 position then said baggage bin tilts downwardly into said
18 lower open position about said guide member of said rear
19 arcuate guide arrangement as said arcuate guide groove of
20 said front arcuate guide arrangement moves farther along
21 said guide member of said front arcuate guide arrangement
22 until said guide member of said front arcuate guide
23 arrangement reaches said uppermost end position in said
24 arcuate guide groove of said front arcuate guide
25 arrangement when said baggage bin reaches said lower open
26 position.

1 15. The baggage compartment according to claim 1, wherein said
2 linear guide arrangement comprises a guide track connected
3 to either one of said side wall and said side member, and
4 a guide roller that is rotatably connected to the other one
5 of said side wall and said side member and that is
6 rollingly engaged with said guide track so as to roll
7 therealong.

1 16. The baggage compartment according to claim 1, wherein said
2 linear guide arrangement comprises a linear guide groove
3 provided in either one of said side wall and said side
4 member, and a slide block that is connected to the other
5 one of said side wall and said side member and that is
6 slidably engaged in said linear guide groove.

1 17. The baggage compartment according to claim 1, wherein said
2 linear guide arrangement comprises a linear track or a
3 linear groove, a guide roller or a slide block arranged to
4 move guidedly along said linear track or said linear
5 groove, and a stop member selectively secured at a selected
6 location on said linear track or said linear groove so as
7 to limit a motion of said guide roller or said slide block
8 therealong.

1 18. The baggage compartment according to claim 1, further
2 comprising at least one of a spring device and a damper
3 device connected to said support structure and said baggage
4 bin.

1 19. The baggage compartment according to claim 1, further
2 comprising a gas pressure spring and damper device with one
3 end pivotably connected to said side wall of said baggage
4 bin and another end pivotably connected to a component of
5 said front arcuate guide arrangement.

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